TireMoni Checkair
TM-240 and TM-260

Tyre Pressure Monitoring System

Operating Instructions

Revision v0.9 – 2011

Supplier:

tpm-systems AG
Romanshornerstr. 117
CH-8280 Kreuzlingen, Switzerland
Fon: +41 (71) 698 6480
Fax: +41 (71) 698 6481
HRA Thurgau: CH-170.3.028.628-4

Distributor:

tpm UG (haftungsbeschränkt)
Gewerbepark 26
D-86687 Kaisheim
Fon: +49 (9099) 966 4966
Fax: +49 (9099) 966 4969
email: support@tiremoni.com

Contents

PRECAUTIONS **3**
THE MAIN PURPOSE OF TIREMONI TM-260 **4**
THE FEATURES OF TIREMONI TM-260 **4**
INSTALLATION 5
OPERATING CONCEPT 5
RELIABLE AND ROBUST 5
LOCATION OF CONTROLS ON LCD MONITOR **6**
DESCRIPTION GRAPHICAL USER-INTERFACE **8**
GETTING STARTED **8**
SYSTEM-DIAGRAM 8
INSTALLATION **9**
Installation of LCD monitor *9*
Power on LCD monitor *10*
Installation of tyre pressure sensors *11*
Insert Batteries in Sensors 12
Installation of 3-Way Adapter (purchase separately) 13
Installation of LCD monitor to the front windshield or dashboard *15*
Installation of monitor bracket 15
Mount LCS monitor to mounting bracket 16
OPERATING INSTRUCTIONS **18**
MONITOR BASIC FUNCTIONS 18
Location of function controls *18*
Screen content and basic operation *18*
Definition of buttons *19*
ADVANCED SETTINGS WITH BUTTONS 20
ADVANCED FUNCTIONS AND SETTINGS 21
OPERATING THE SYSTEM **27**
INITIALISATION 27
MAIN SCREEN 27
SLEEP MODE 28
ABNORMAL TYRE PRESSURE OR TEMPERATURE 28
Tyre Pressure below lower warning threshold *28*
Tyre Pressure above upper warning threshold *29*
Tyre Temperature above Upper Warning Threshold *29*
Monitor Battery runs out of power *30*
Sensor: Battery running low *30*
ADDITIONAL INFORMATION **31**
TROUBLESHOOTING **31**
PACKAGE CONTENTS **33**
DECLARATION OF CONFORMITY **34**
PRODUCT SPECIFICATIONS **35**
CONDITIONS OF WARRANTY **35**
WEEE – DISPOSING OF ELECTRICAL INSTRUMENTS **35**

Product Specifications

Sensor-Specification	
Frequency	433,92 MHz
Measuremen range	0 - 12 Bar (0 – 180 psi)
Accuracy	Pressure ± 0,2 Bar、Temperature ±2 ℃
Operaing voltage	3V DC
Operating temperature	-40 ℃ ... 125 ℃
Battery life	1 - 2 years (depends on working hours per day)
Dimensions	Diameter 20.5mm X Height 20mm
Weight	10 g (±1)

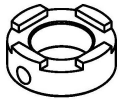
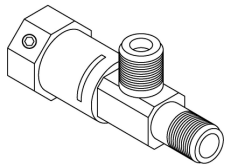
Monitor Specification	
Frequency	433.92 MHz
Operating voltage	3V DC
Battery life	1 year (depends on working hours per day)
Operating temperature	-20℃ ... 80℃
Dimensions	Width 102 mm X Height 75 mm X Depth 29 mm
Weight	145 g

Conditions of Warranty

In accordance with legal rules this instrument is subject to a warranty period of 24 months from date of order. A copy of the sales slip is sufficient proof of purchase in case of a complaint under warranty. Damages that can be ascribed to wear, transport, overloading, neclecting the operating manual or inappropriate handling will not be covered under this warranty. The same holds for expendables, e.g. batteries. The manufacturer is not liable for indirect consequences and damages. The warranty period is not extended or renewed by any possible repairs. Claims under this warranty are only accepted if the instrument is returned complete and free of charge to the dealer, distributor or manufacturer.

WEEE – Disposing of Electrical Instruments

Instruments that are marked with the marking shown, must not be disposed of in household waste. You are obliged to dispose of such electronic instruments separately. Please consult your local authority about the possibilities of suitable disposal. With the separate disposal you are returning obsolete devices to a suitable form of recycling. This way you are helping to avoid potentially hazardous substances to contaminate our environment.

Description	Picture	Model		
		TM-240	TM-260	Unit
TM-260/280 tyre pressure sensor		4	6	pcs.
CR1632 Battery for sensors		4	6	pcs.
Allen wrench		1	1	pcs.
Anti theft protection ring		4	6	pcs.
Hex lock screw		4	6	pcs.
Optional (not in package)				
3-Way Adapter		4	6	pcs.
Allen wrench		1	1	pcs.

Declaration of Conformity

This product is in its construction and in its operating characteristic conforming to the applicable European directives as well as additional national requirements.
The conformity has been proven.
The declaration of conformity can be obtained with:
tpm UG, Gewerbepark 26, D-86687 Kaisheim or with the responsible importer.

Precautions

1. Please choose the installation location carefully so that the LCD monitor will not interfere driver when driving.
   1、 Please make sure that the LCD monitor is firmly fixed to the windshield or dashboard.
   2、 When reading tyre pressure figures from LCD monitor, please take care of driving safety.
2. Please make sure the LCD display can receive signals from all tyre pressure sensors.
3. TireMoni WTPMS provides a unique anti-theft tool to prevent sensors from being stolen. You can decide whether to install it or not.
4. Please double confirm if sensors are fitted tightly. If necessary, please spread detergent water on the valve stem to check for any air leakage.
5. If tyre pressure is drooping or dropping quickly, please stop car immediately to find out if tyre is deflated or any other problem is happening.
6. The monitor will automatically make connections in the whole system when the car starts to run. It is normal that some tyre pressure figures might not be updated immediately if there is no change of tyre pressure in those tyres.
7. TireMoni WTPMS has mechanisms to avoid interfering /being interfered with other signals.
8. Many environmental factors cause tyre temperature to rise and fall as well. For example, hot weather or warm tyres will lead to rising tyre pressure.
9. It is natural that tyre pressure will decrease over time by diffusion but not caused by the installation of the tyre pressure monitoring system. TireMoni WTPMS always displays the real figure of tyre pressure.
10. If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest TireMoni dealer or visit www.tiremoni.co.uk/FAQ.html.

Video Channel – TireMoni Support Videos:
You can find instructions contained in this manual also in video format.
Please visit your video channel on Youtube: http://www.youtube.com/user/tpmsys

International:

Deutsch:	TireMoni TM-240/260 Handbuch:	www.tiremoni.com/Downloads.html
English:	TireMoni TM-240/260 User Manual	www.tiremoni.co.uk/Downloads.html
Français:	TireMoni TM-240/260 Manuel d'Utilisation	www.tiremoni.fr/Downloads.html
Italiano:	TireMoni TM-240/260 Istruzione d'Uso	www.tiremoni.it/Downloads.html
Nederlandse:	TireMoni TM-240/260 Gebruikers Handboek	www.tiremoni.nl/Downloads.html

The Main Purpose of TireMoni TM-260

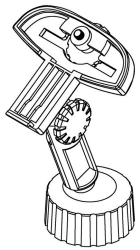
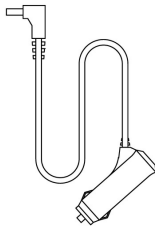
The Tyre Pressure Monitoring System (TPMS) is an efficient and effective solution to many of current automotive safety problems. TPMS will help prevent driving on deflated tyres and reduce fuel consumption.
There are benefits here:

- Improves ride performance and handling
  Tyre pressure has a huge influence on driving characteristics.
- Decreases the chance of a tyre blowout
  It is very critical to keep tyre pressure in good condition when driving, especially when buses or trucks are carrying people or dangerous materials such as poisonous substances, oil, etc.
- Reduces labour of tyre pressure inspections
  Multi-wheel trucks require a lot of time for human inspection of tyre pressure. It goes without saying that there is no chance to monitor tyre pressure while driving.
  The TireMoni system provides a very clear picture of tyre pressure status among all tyres.
- Does not add much maintenance cost
  Advanced designs to give the best convenience to all drivers by wireless/ cordless design, external sensors, etc.
- Less downtime
  Real time monitoring gives you tight control of your tyre pressure and temperature and avoids unexpected accidents caused from abnormal tyre pressure and temperature.
- Reduces fuel expenses
  Fuel efficiency is reduced by one percent for every 3 P.S.I. of under inflation. It is for sure that tyre pressure is also one of the important factors to reduce petrol consumption.
- Extends tyre life
  Research finds that running tyres 20% underinflated can reduce tyre life by up to 50%. It is crucial to keep tyre pressure at the right level (right tyre pressure figures for each tyre normally suggested by your car manufacturer)
- Increases return on investment
  Concludes advantages mentioned above, by taking care of tyre pressure with simple Tyre Pressure Monitoring System, gains are much more than what you expect.

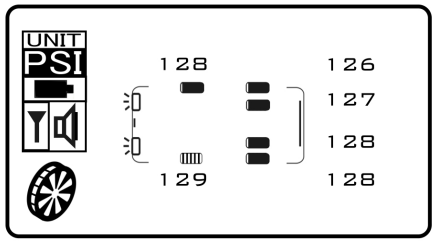
The Features of TireMoni TM-260

TireMoni WTPMS (Wireless Tyre Pressure Monitoring System) – is a powerful tool for maximizing uptime and improving safety- The New WTPMS Standard- TireMoni Tyre Pressure/ Temperature Monitoring Solutions
TireMoni is the leading WTPMS solution for car and trailer, caravans, motorhome and light trucks. By continuing to develop new and better TPMS designs and manufacturing technologies, TireMoni has helped improve safety issues and reduce operational costs. The major milestone of TireMoni truck WTPMS is the introduction of a lightweight valve cap sensor design. The extremely lightweight, compact sensor has been specifically designed to simplify and reduce installation time. Now there is no need to sacrifice tyre maintenance efforts to gain safety. Through wireless technology, tyre pressure and temperature information is displayed on the friendly Graphic User Interface (LCD monitor).
TireMoni WTPMS series is available in configurations to fit all types of vehicles- including car and trailer, caravan, motorhome, transporter, light truck, bus, agriculture, ambulance, trailer, etc.

Package contents

Description	Picture	Qty
TM-260 LCD-monitor		1 pcs.
AA 1.5 V Battery for monitor		2 pcs.
User manual		1 pcs.
Mounting bracket with suction cup		1 pcs.
Cigarette adapter cable		1 pcs.

2. No connection to any sensor



In this example F1 (front left) no connection to sensor

A. Please make sure if sensors is screwed on where it should be.
B. Please make sure if sensor has battery inserted.
C. Battery has no power after use for a long time. Battery could run out of power and we suggest to replace with new battery.
D. Please make sure if your sensor has mixed with other systems'. As each sensor has its unique identified number and monitor can only receive pre-loaded identified number in each tyre position.
E. On larger vehicles (e.g. motorhomes >3,5 to) it can occur that the radio range of the (rear) sensors is too low. For this case a repeater/booster (optional) can be added to the system. Please contact your TireMoni dealer or visit http://shop.tiremoni.com
F. If these solutions do not help improve the situation, consult your nearest TireMoni dealer or contact TireMoni support: www.tiremoni.com/FAQ.html

3. Monitor does not stop beeping
When battery-lower indicator is on and keeps on running system for days straight, it could make monitor abnormal and keep on beeping. Just change battery for back to normal operation.

4. Monitor display color is getting dark.
When car temperature is over 85°C, it is natural that LCD panel will be getting dark.
When car temperature is back to normal, LCD panel will be normal as well.

5. When temperature is below -25°C, the response time could be slower in LCD monitor.

6. Monitor in the 'sleep mode'
Temporarily parking the truck or driving truck in a stable speed, which could let monitor get into 'sleep mode'. It is a special design for power-saving purpose. You can simply slightly shock monitor or press any of buttons to wake it up.

7. Please make sure the surface of glass is clean and flat to give the best fitness to monitor bracket. Otherwise, the monitor could drop off.

8. Tyre pressure will be always changing by many environmental factors:
One of key factors is tyre temperature: Tyre pressure will rise by 4 P.S.I. for every 10 °C temperature rise when at room temperature of 25 °C.

Installation

- **Do it yourself (D.I.Y.):** TireMoni can be fully installed in a short time.
We recommend to have the first time installation done by a professional.
- **Please note:** It is recommended to install TireMoni sensors on suitable metal valves: Suitable length so that the sensor does not protrude from the rim and suitable valve type so that the forces are held by the valve case and not the gasket (e.g. Valve series ASC made by Alligator, see http://shop.tiremoni.com).
- **Twin tyres / Valve extenders:** Where (e.g. inner twin tyre) valve extenders are used, they need to be mechanically supported at the sensor end using suitable accessories. Valve extenders are under pressure when the sensor is installed; use only suitable models! (Standard plastic extenders are NOT suitable for use with TireMoni!)
- **Wireless and cordless**: wireless sensors and LCD monitor ensure a quick and easy installation.
- **Battery-powered**: Battery powered LCD monitor and sensor and battery low indicators on the monitor can remind driver of battery power status in all tyres.
- **Light and compact sensor:** extremely lightweight and compact sensors with specially designed electronics.

Operating Concept

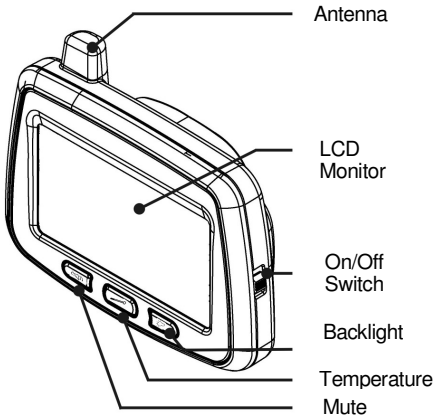
- **Graphical user interface:** Powerful graphical user interface for rapid understandings of tyre status.
- **Real-time:** high accuracy, real-time monitoring of tyre pressure and temperature.
- **Adjustable:** fully adjustable pressure and temperature warning thresholds separately for each axle.
- **Warnings:** The driver will be alerted when abnormal status of tyre pressure easily from 3.5" LED panel or from beep sounds.
- **3-way adapter design (optional accessory)**: new design of 3-way adapter allows users to inflate tyre without removing sensors.

Reliable and Robust

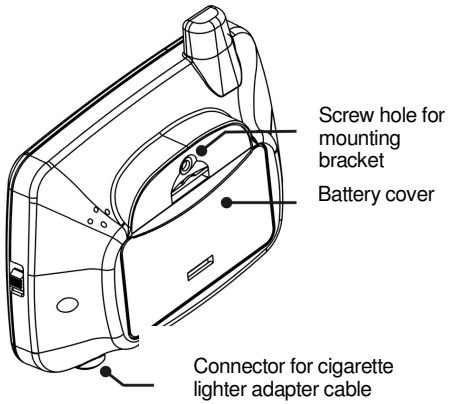
- **Anti-theft tool for sensor**: all electronic sensors can be locked in place to prevent theft.
- Sensors are changeable in the very unlikely event of defect or damage, so down time is minimal.
- Ensure signal accessibility by providing peripheral signal integrity technology.
- Strict environmental test have proven its reliability.
- **180 P.S.I:** Tyre pressure can support up to 180 P.S.I.
- **Corrosion protection:** metal section is completely immersed in rust preventative coating for increased service life and reduced downtime. Rust preventative coating is applied for durability. In addition we recommend installation using a suitable anti-rust installation spray.
- **Extendable Range**: For trucks and large motorhomes and in cases where the radio range of the sensors is not up to desired level, a range extender can be added to the system. See http://shop.tiremoni.com

Location of Controls on LCD Monitor

Monitor Description

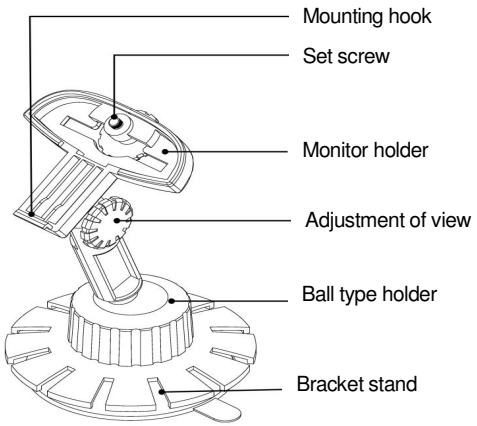


Front view of monitor



Rear view of monitor

Monitor bracket description



Mounting bracket

Additional Information

Under normal conditions, sensor batteries will last approximately 1~2 years. (The service life may be shorter, depending on the conditions of use.) When the battery becomes weak, the power low indicator will appear on the screen. Replace the battery with a new CR1632 lithium battery.

Notes on Batteries

- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with dry cloth to assure a good contact.
- Be sure to observe the correct polarity when installing the battery. (+ away from sensor, - towards sensor)
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- Battery may explode if mistreated.
- Do not recharge, cut or burn batteries.

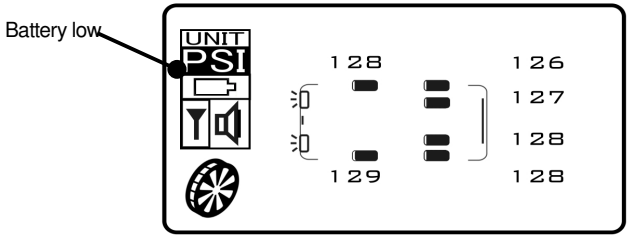
Troubleshooting

The following checklist will help you remedy problems you may encounter with your unit. Before going through the checklist below, check the connection and operating procedures.

1. Indications disappear from / do not appear in the display
   A. Please make sure that power switch is on.
   B. Please make sure taht monitor has battery inserted.
   C. Be sure the power of battery is sufficient.
   D. Be sure to observe the correct polarity when installing the batteries.
   E. If you use power cord, make sure that it is not disconnected.
   F. Please make sure if battery has no power after use for a long time. Battery could run out of power and we suggest to replace with new battery.
   G. Please make sure if the system is in 'sleeping mode' as the 'sleeping mode' will be triggered when system has been in idle for more than 10 minutes. It is for power-saving purpose. You can bring the system back to work by shocking the monitor slightly or by pressing any of the buttons on the monitor.
   H. If these solutions do not help improving the situation, consult your nearest TireMoni dealer or visit www.tiremoni.com/FAQ.html

Monitor Battery runs out of power

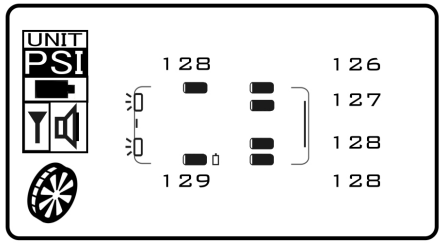
Battery power in monitor will decrease by daily operation and when power level is lower to some extent, battery low indicator in LCD monitor will appear to remind driver of time to replace battery. The icon is shown as picture below:



Please change monitor battery as early as possible to make sure system functions well.

Sensor: Battery running low

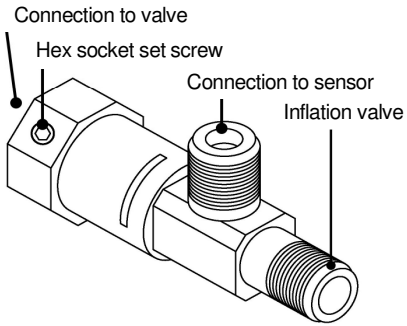
Battery power in sensor will decrease by daily operation and when power level is lower to some extent, the sensor battery low indicator will appear to remind driver of time to replace battery. The icon is shown as picture below



In this example R1 (wheel front left): Battery low

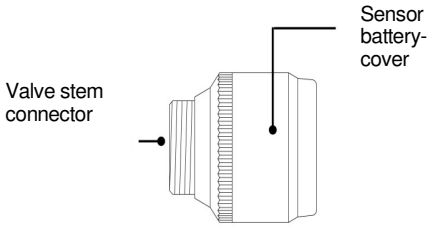
Please change sensor battery as early as possible to make sure system function well.

3-Way Adapter Description

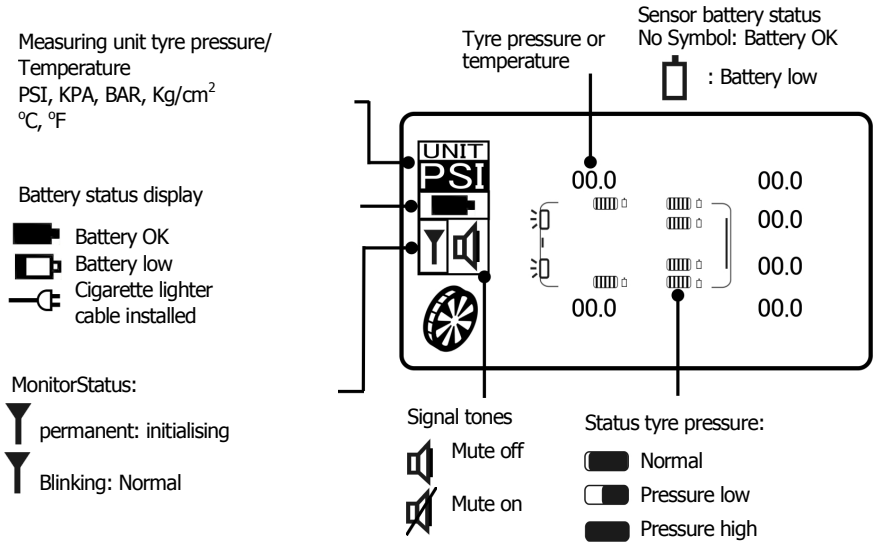


(The 3-Way Adapter is not included. It is available as separate accessory)

Sensor description
The sensor has two portions: sensor cap and sensor body. Its external type can benefit user to install tyre pressure sensors at home without any assistance from technicians.



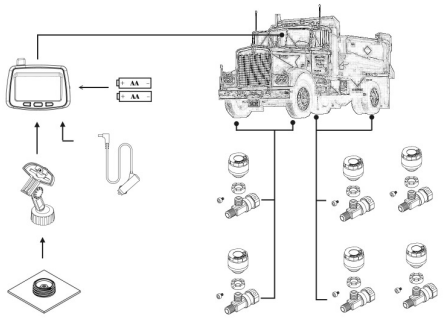
Description Graphical User-Interface



All Informations are presented on the 3.5" LCD monitor.

Getting Started

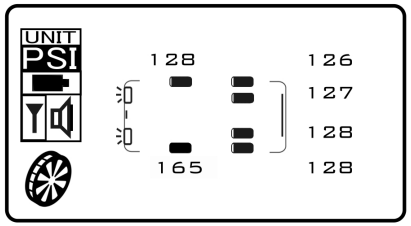
System-Diagram



Note: The 3-way adapter is not included. It is available as optional accessory. Please purchase separately if required.

Tyre Pressure above upper warning threshold

If tyre pressure is above upper warning threshold (default value= 160 P.S.I.), monitor will beep for three times and tyre shape icon will show full black bar, which means high tyre pressure now. The picture is shown below to explain the front-left tyre has tyre pressure high now.

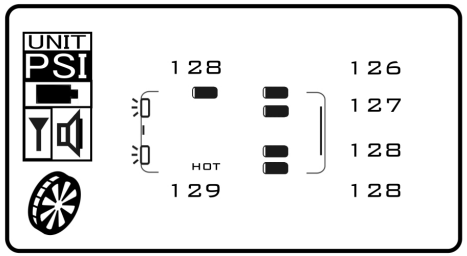


In this example R1 (wheel front left)

If tyre pressure keeps on rising, every one P.S.I higher, it warns again. The situation will be stopped, when tyre pressure is back to standard value.
Note：It is strongly suggested that as long as low tyre pressure warning is on, check tyre situation first to ensure safety.

Tyre Temperature above Upper Warning Threshold

If tyre temperature is above upper warning threshold (default value=70°C), monitor will beep for three times and warning message "HOT" will be shown, which means high tyre temperature now. The picture is shown below to explain the front-left tyre has tyre temperature high now.

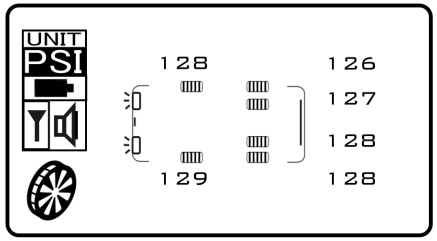


In this example R1 (wheel front left)

If tyre temperature keeps on rising, every 1 °C higher, it warns again. The situation will be cleared, when tyre temperature is back to standard value.
Note：It is strongly suggested that as long as low tyre temperature warning is on, check tyre situation first to ensure safety.

Sleep mode

For power saving purpose, very intelligent design in this system could automatically enter sleeping mode as long as the monitor has not been vibrated for more than 10 minutes. In this mode, monitor will be turn off to save battery power. Any vibration such as open car door or push any of buttons, monitor will be woken immediately. However, the display will look like picture below as the connection should be re-connected to get the latest tyre and system status.

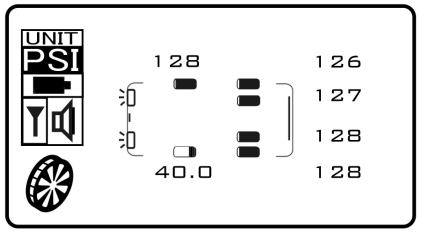


When making connections successfully, monitor will be back to main screen.

Abnormal Tyre Pressure or Temperature

Tyre Pressure below lower warning threshold

If tyre pressure is below lower warning range (default value= 100 P.S.I.), monitor will beep for three times and tyre shape icon will show shorter black bar, which means low tyre pressure now. The picture is shown below to explain the front-left tyre has tyre pressure low now.



In this example R1 (whell front left)

If tyre pressure keeps on going down, every one P.S.I. lower, it will warn again. The situation will be stopped, when tyre pressure is back to standard value.

Note：It is strongly suggested that as long as low tyre pressure warning is on, check tyre situation first to ensure safety.

Installation

You can choose to use battery power or connect cigarette power cord to your car. Here we suggest that you can insert batteries instead. Please follow coming steps to install batteries into monitor and sensors.:

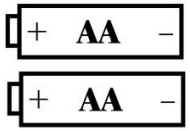
Installation procedure

1. Install batteries in LCD monitor.
2. Switch on LCD monitor.
3. Insert batteries in sensors.
4. Install sensors onto valves in place of dust caps.

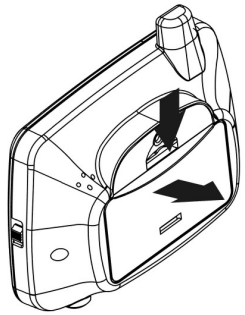
Installation of LCD monitor

Battery as power source

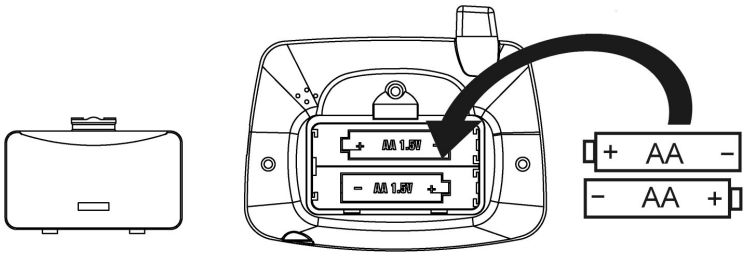
A. Please prepare AA battery which is provided in product package.



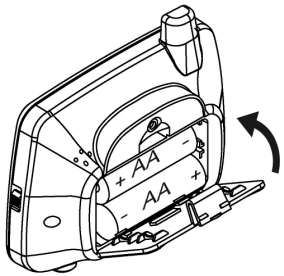
B. Open the battery compartment cover
Slide the lever as shown by the arrow and open the cover



C. Insert the batteries
Insert the end with the battery contacts
insert the battery until it locks in place.



D. Close the cover



Press the cover until it snaps shut.

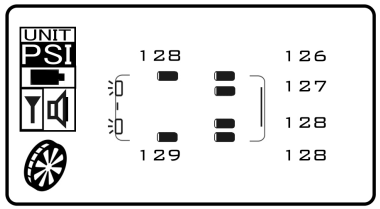
Power on LCD monitor

Slide the power switch followed by direction shown as below.

Operating the System

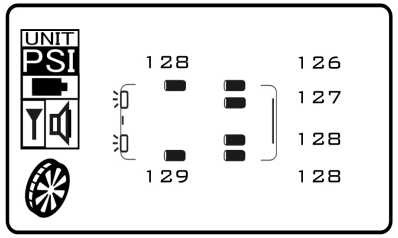
Initialisation

In initialization stage, monitor will detect relay(s) and sensor(s) first and show all necessary information after booting up.

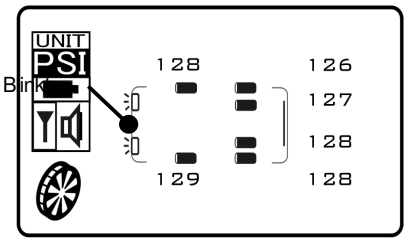


Main Screen

After booting up for around two minutes, system will enter main screen. Most of time, your system will stay in this mode and response with the latest figures of both tyre pressure and temperature.



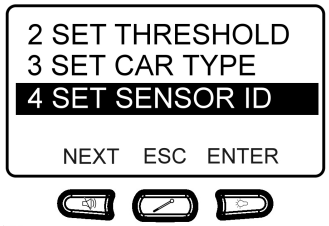
Boot up sequence ca. 2 minutes



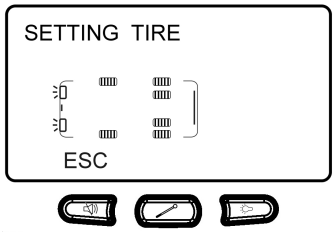
4. SET SENSOR ID (Sensor ID learning procedure – use only when installing a spare sensor!)

Symbol / Button			
In main screen	Mute	Temperature	Backlight
In SET SENSOR ID	ESC (back)	/	/

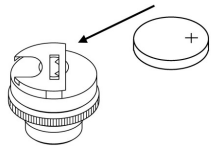
When you need to replace any of the existing sensors with learnable sensor, you will need this function. Normally, original sensor has its own identified number and you won't need to do anything with sensors. However, whenever you lost your original sensor or sensor is broken, you will need to purchase a new 'learnable sensor' to replace. The 'learnable' sensor can be bought at your local dealer or at http://shop.tiremoni.com



In 'SET SENSOR ID' mode you will have screen display as below. (Different truck type will have different display):



Insert battery into sensor and monitor will beep again to finish 'identified number learning procedure'.



Note: 'SET SENSOR ID (sensor identified number learning procedure)' will need 'learnable sensor' but not any of its original sensors. The 'learnable sensor' should be purchased in your local dealer.
If you perform this operation on a original sensor, the system will lose the connection to this sensor!

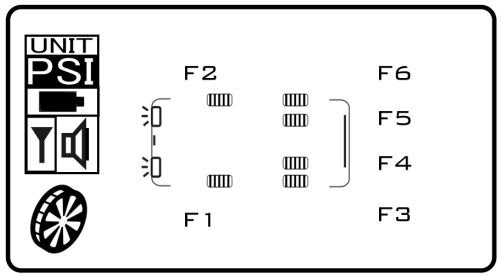
Now LCD monitor will be receiving signals from sensors. The booting-up screen is as picture below:

Note:

1. When batteries are exhausted soon, the battery level will be displayed. Please refer to coming explanation.
2. Before you are going to next step, please switch on your display first.
3. Make sure battery polarity is correct when inserting batteries.
4. The system is designed for the convenience of user. Therefore, user doesn't need to switch off monitor and we even strongly suggest that user should keep the monitor power on all the time. The monitor will automatically enter 'sleeping mode' when system is not in use.

Installation of tyre pressure sensors

As each sensor has its own position, you have to make sure it is installed in that pre-set position. There could be a different number of tyres depending on your model. When inserting batteries in every sensor please don't mix up sensor caps. In order to meet most of configurations, the system with 6 –wheels (twin wheels on rear axle) will be taken for example:



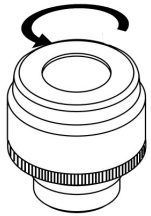
The actual arrangement will be followed by different product contents. The marked position number will be found on every sensor cap..

Note:

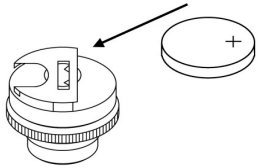
Make sure battery polarity is correct when inserting it.
Make sure sensor body won't mix up with other sensor cap.
When batteries are exhausted soon, the battery level will be displayed on the LCD monitor.

Insert Batteries in Sensors

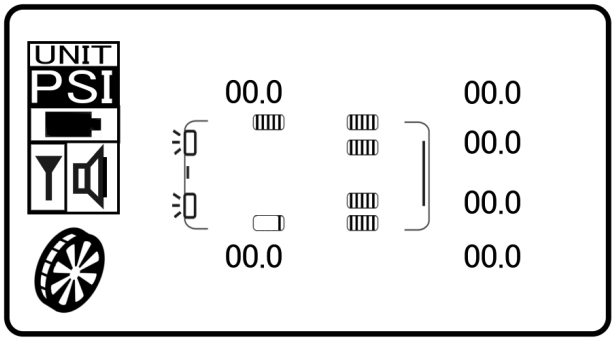
A. Remove sensor cap



B. Insert lithium battery and make sure battery polarity is correct when inserting it.



Right now, monitor will receive signals from corresponding sensors and report pressure value on the screen. At first, you will find that the value shows "00.0". This is because sensors have not been mounted yet. The screen could show as below:



In this example F1 (front right) has just been installed

Note: After removing battery, wait a minimum of 10 seconds before re-inserting battery again. This is required for correctly resetting the sensor.

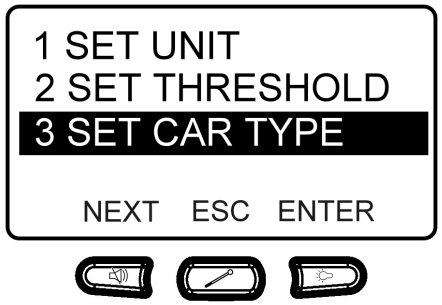
Car Type	Conceptual car drawing	Number of wheels	Sensor positions (sensor number = position)
1		4	1 = FL, 2 = FR 3= RL, 4 = RR
2		6	1 = FL, 2 = FR (front axle) 3= ML, 4 = MR (mid axle) 5= RL, 6 = RR (rear axle)
3		6	1 = FL, 2 = FR 3= RL outer, 4 = RL inner 5= RR inner, 6 = RR outer
4		8	1 = FL, 2 = FR 3= ML outer, 4 = ML inner 5= MR inner, 6 = MR outer 7= RL, 8 = RR
5		8	1 = FL, 2 = FR 3= ML, 4 = MR 5= RL outer, 6 = RL inner 7= RR inner, 8 = RR outer
6		10	1 = FL, 2 = FR 3= ML outer, 4 = ML inner 5= MR inner, 6 = MR outer 7= RL outer, 8 = RL inner 9= RR inner, 10 = RR outer

Note:
In some models of TM-240B and TM-260B only vehicle types 1, 2, 3 are selectable. The vehicle types 4, 5, 6 cannot be selected in these models.

3. SET CAR TYPE – Select type of vehicle

Symbol / Button			
In main screen	Mute	Temperature	Backlight
In SET CAR TYPE	NEXT (choose next option)	ADJ (select trailer if present.)	ENTER (choose this configuration)

Monitor has pre-set 6 types of car. You can also have simple modifications in each model to satisfy your most needs. However, for most of TM-260 series products, this function will be frozen.

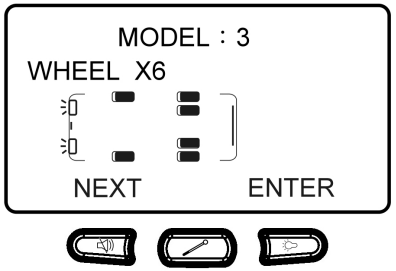


Here you can select type of vehicle.

In this screen, by pressing (Mute) that stands for NEXT now, you can go through different models to pick up one fitted with your car.

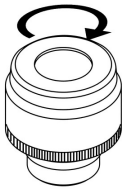
Car type

Number of wheels

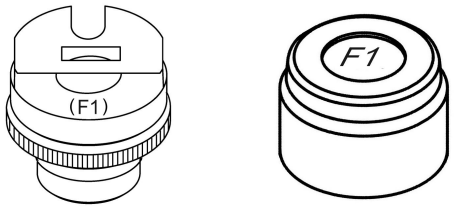


Note: For some models, this function could be taken away, as only certain car type will be available to some models.

C. Fit sensor cap in a clockwise direction

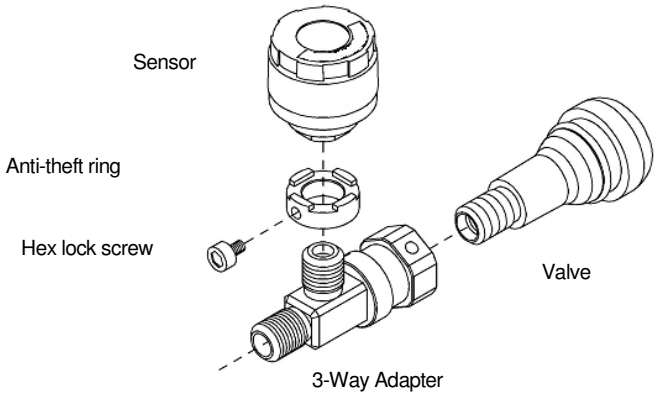


Please refer to "sensor map" to make sure the right position of each sensor and please don't mix up sensor caps either. You will find either sensor cap and sensor body have marks to remind user of its position.

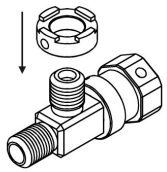


Sensor position (F1)

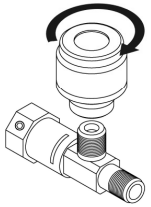
Installation of 3-Way Adapter (purchase separately)



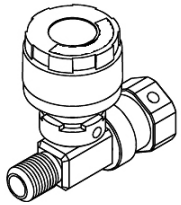
A. Place anti theft ring onto adapter as shown.



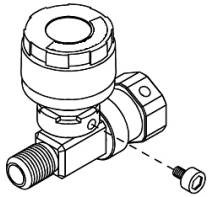
B. Screw sensor onto adapter. Please do not use too much force.



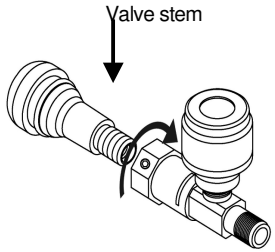
C. Adjust anti-theft ring so that it slides into the grooves at the sensor bottom.



D. Install hex lock screw using the supplied allen wrench

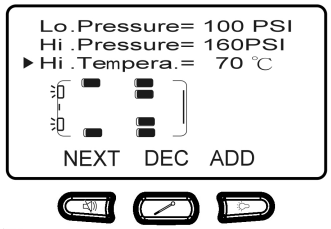


E. Screw adapter onto valve

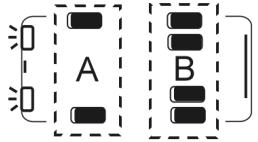


When screwing the 3-way adapter onto the valve stem, some paired- wheels could be difficult to reach valve stem. One of wheels might be needed to take off if necessary; alternatively install without adapter in such cases.

Using the two buttons decreases (DEC) or increases (ADD) the respective value.

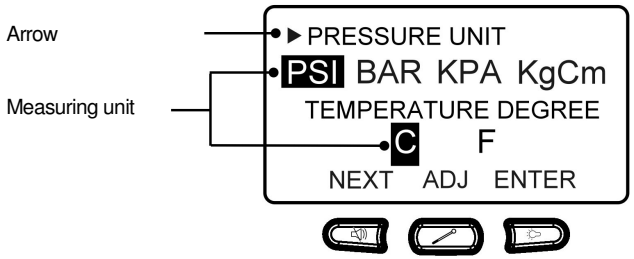


The tyre pressure warning range setting has two ways of setting: group setting or fast setting. Group setting can let user configure in different row of tyres. As picture shows below, there are A and B groups. When group A configuration is finalized, it will jump to group B immediately. Tyre group will be blinking when you are making settings. After go through from group A to B (in this case), it will automatically jump out of this screen and ask if you want to save or not.



The fast setting will configure all tyre pressure and temperature in same level in order to give convenience to users. You just need to press for more than 3 seconds and all tyres will be blinking and followed by same procedure as previous content..

When in the mode of advanced function- set unit, the icon (▶) will be switched between (PRESSURE UNIT) and (TEMPERATURE DEGREE) for different measuring units. In this system, there are four pressure measuring unit provided – P.S.I., BAR, K.P.A. and Kg/cm. Also, ℃ and ℉ can be chosen.



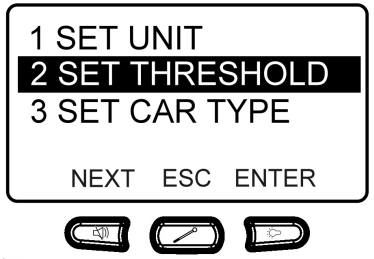
Set measurement units

By pressing (Enter), Settings will be saved.

2. SET THRESHOLD – Adjust warning thresholds

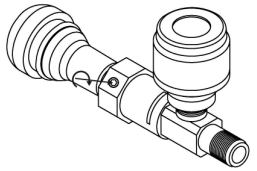
Symbols / Buttons			
In main screen	Mute	Temperature	Backlight
In SET THRESHOLD	NEXT (choose next option)	DEC (decrease value)	ADD (increase value)

This function can give user customized warning ranges of tyre pressure and temperature between certain ranges. When tyre pressure/ temperature are not in normal range, monitor will give both audible and visible warnings to driver. You could adjust warning range depending on specific situations.



When entering 'SET THRESHOLD' mode changes between upper warning threshold (Hi.Pressure) and lower warning threshold (Lo.Pressure) and uppoer Temperature threshold (Hi.Tempera.), and the arrow icon shows the line currently manipulated.

F. Secure 3-way adapter with hex lock screw

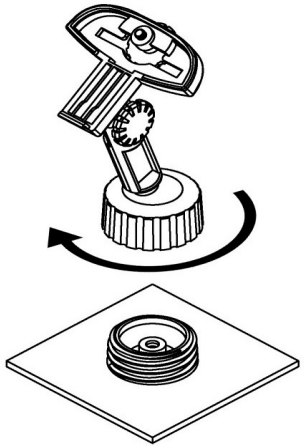


Check for leaks after installation. Spread water over sensors and adapters and watch for bubbles.

Installation of LCD monitor to the front windshield or dashboard

Installation of monitor bracket

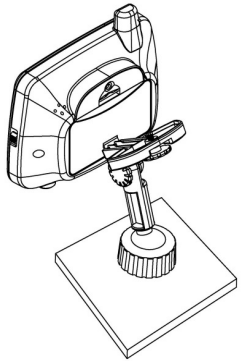
In the package, there is a suction cup mounting bracket. Connect it to the mounting frame.



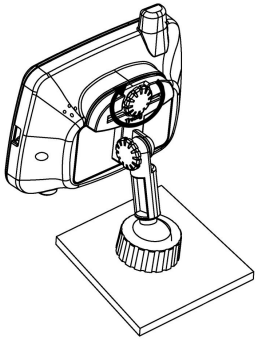
Mounting bracket with suction cup

Mount LCS monitor to mounting bracket

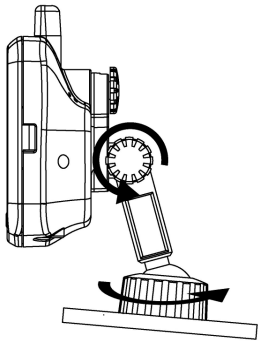
A. Hook bracket to LCD monitor first



B. Set screw tightly



C. Two joints are available for adjustment of LCD monitor see angle.

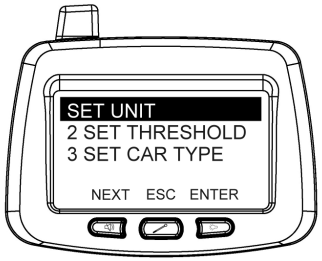


Advanced Functions and Settings

Except three based functions (Mute, Temperature display and Backlght) there are 4 advanced functions:

1. SET UNIT: set up tyre pressure or temperature measuring unit
2. SET THRESHOLD: set up warning values
3. SET CAR TYPE: chose the car type you are applying (this function could be frozen depending on models)
4. SET SENSOR ID: retrieve ID numbers from sensors

Note: when in advanced mode, the three buttons will have different functions. In coming chapters, before getting into main content, the definition of the three buttons will be explained.



Entering into advanced mode

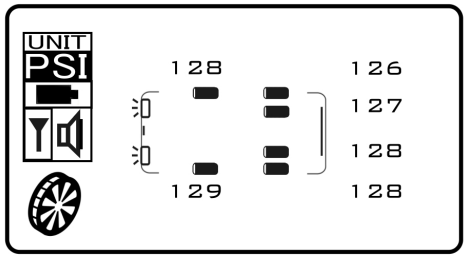
1. SET UNIT

Symbols / Buttons			
In main screen	Mute	Temperature	Backlight
In SET UNIT	NEXT (choose next option)	ADJ (adjustment)	ENTER (choose this configuration)

Monitor can support four types of pressure measuring units – PSI, KPA, BAR and KG/cm^2 and two types of temperature measuring units - ℃ and ℉. You can choose by your own request.

Backlight

When in darkness, you also can check out tyre pressure and temperature by pressing backlight button. The backlight will be off after three seconds.



After pushing

Advanced settings with buttons

In advanced settings, the three buttons play important roles to guide users to finish all settings. Different definitions will be given and presented on the bottom of screen. Here is the simple chart of their definitions in different setting modes.:

Settings			
In main screen	Mute	Temperature	Backlight
In advanced settings	NEXT (go to next option)	ESC (back)	ENTER (select and store setting)
Adv. Setting SET UNIT	NEXT (go to next option)	ADJ (go to next value)	ENTER (select and store setting)
Adv. Setting SET THRESHOLD	NEXT (go to next option)	DEC (decrease value)	ADD (Wert erhöhen)
Adv. Setting SET CAR TYPE	NEXT (go to next option)	/	ENTER (select and store setting)
Adv. Setting SET SENSOR ID	ESC (back)	/	/

First, please press 'mute' for more than 5 seconds and you will enter 'advanced mode.' In 'advanced mode', there are 5 submenus you can configure as needed.

D. Mount the LCD monitor to the front windshield or dashboard.

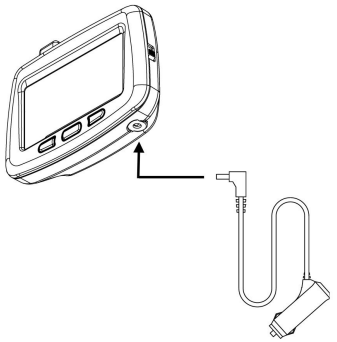
Note:

Be careful not to splash juice or other soft drinks onto the LCD monitor.
Before fixing bracket, chosing a flat and clean surface is necessary for better holding of bracket.
To keep the screen clean, do not touch the surface. Handle the display unit by its edge.
Monitor should keep standing -up vertically. Operation in upside down or laying flat position could lead to dysfunction.
Since the back of the display enclosure is flat, it can also be fixed by using velcro strips.

Optional: Cigarette lighter adapter cable

Another option for use is by connecting to car cigarette adapter and battery will not be needed.

A. Connecting cigarette power cord to monitor



B. Connecting power cord to car cigarette adapter as well.

After installation of the system as described above, all tyre pressures are shown on the display.

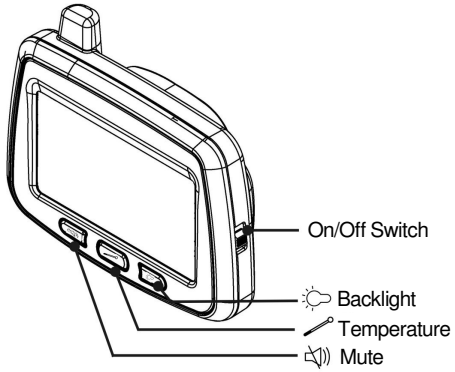
The following chapters describe the operation of the instrument and changing the settings according to your vehicle's requirements.

This is a one time prodedure for setting the vehicle type (number of axles, number of wheels) and the warning thresholds (lower pressure warning, upper pressure warning, upper temperature warning); at the same time the units for pressure (psi, bar, kpa, kg/cm2) and temperature (℃ or ℉) should be chosen and set.

Operating Instructions

Monitor basic functions

Location of function controls

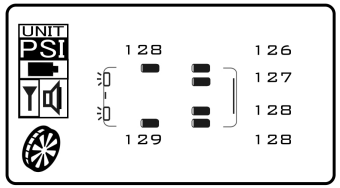


Screen content and basic operation

On/Off Switch

Switch on monitor followed by direction shown above. Monitor will be booting up and communicating with sensors and shows tyre pressure values that is kept from last time before system was off..

Start sequence

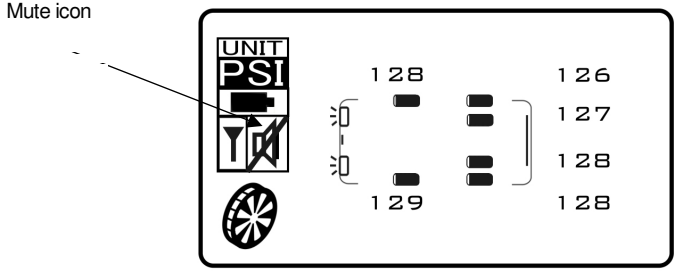


Main screen
(This is a demo screen and the actual tyre pressure figures and configuration could be different)

Definition of buttons

Mute
When tyre pressure or temperature is in abnormal situation, beep sounds will alert the driver. However, if switch to mute mode, beep sounds will stop and only visible warnings can be seen on the screen. Press mute button again, return to original audible warnings setting.

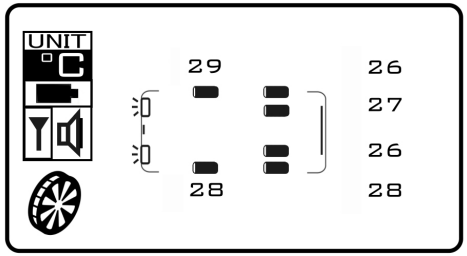
Mute icon



After pushing

Temperature
By pressing the temperature button, you can see all tyre temperatures from screen and after three seconds, the screen will return back to main screen.

Temperature-
Unit（℃/℉）



After pushing